

V-Mount Macro Lens

Componon-S 5.6/100-0022

Unlike conventional camera lenses where the optical performance decreases as the magnification increases, Schneider-Kreuznach macro lenses have been developed and corrected exclusively for the close-up range of 1:20 to 1:1. Due to its mechanical stability and the robust V-mount interface enabling simpler adjustment of the best azimuth position, the system is exceptionally well suited to demanding, continuous industrial use.



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Key Features

- Excellent optical imaging performance when using large sensors
- Vibration-insensitive for stable optical performance
- Industry-compatible V-mount interface
- Lockable distance and aperture settings
- Continuous aperture adjustment, guaranteed long-term stability
- 100% quality control guarantees reliability and constant quality
- Low maintenance requirements, therefore high system reliability

Applications

- Machine Vision and other imaging applications
- PCB inspection
- LCD inspection
- OLED inspection
- Solar inspection

Technical Specifications

F-number	5.6
Focal length	102.3 mm
Image circle	108 mm
Magnification	1:20 to 1:1, optimized for -0,17
Transmission	400 - 700 nm
Interface	V38-Mount
Weight	140 gr.
Filter tread	M37 x 0.75
Code no.	35142

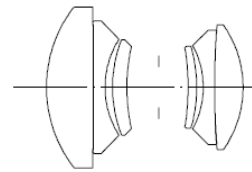
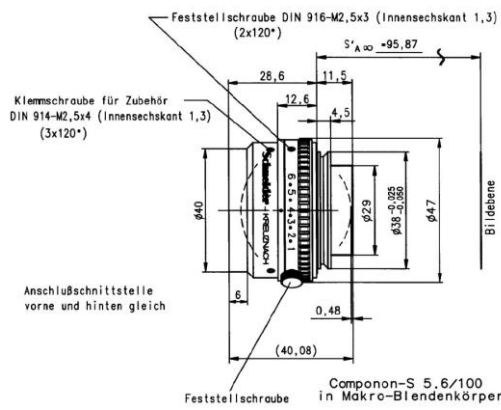
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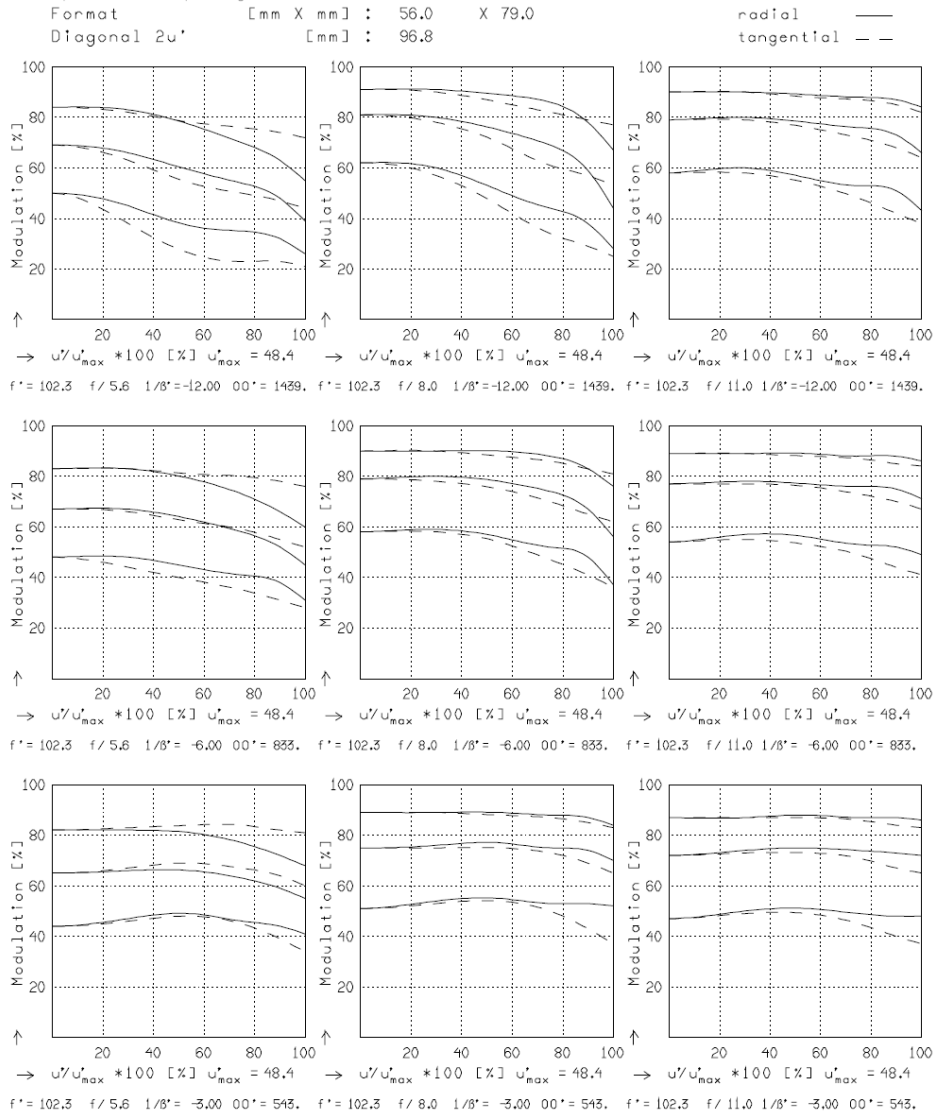
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f'	= 102.3 mm	B_p	= 0.988
s_F	= -81.8 mm	s_{EP}	= 21.8 mm
$s_{F'}$	= 84.9 mm	s_{AP}	= -16.2 mm
HH'	= -2.4 mm	Σd	= 35.6 mm

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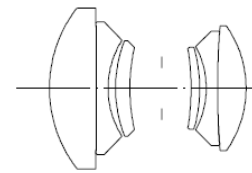
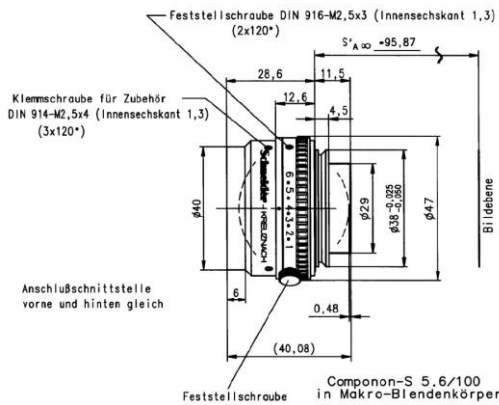
MODULATION with reference to the relative image height

Wavelength λ	[nm]	546	706	644	480	436	405
Spectral weighting	[%]	27.4	12.4	24.1	18.3	12.6	5.2
Spatial frequency R	[1/mm]	10	20	40			
Format	[mm X mm]	56.0	X	79.0			
Diagonal $2u'$	[mm]	96.8					



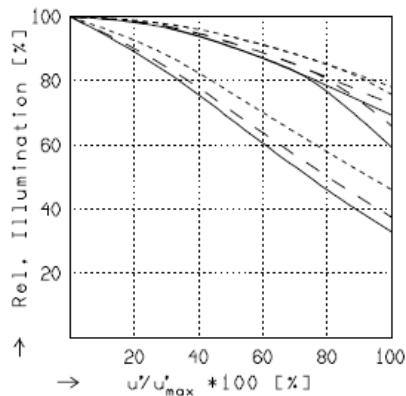
Focusing : MTF_{max} at $f / 5.6$, $R = 20$ 1/mm, $u'/u'_{max} = 0$

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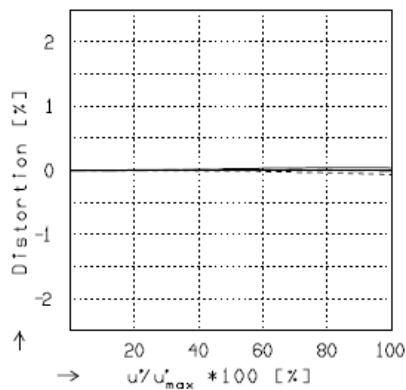
$f' = 102.3 \text{ mm}$	$\beta'_p = 0.988$
$s_F = -81.8 \text{ mm}$	$s_{EP} = 21.8 \text{ mm}$
$s'_F = 84.9 \text{ mm}$	$s'_{AP} = -16.2 \text{ mm}$
$HH' = -2.4 \text{ mm}$	$\Sigma d = 35.6 \text{ mm}$



RELATIVE ILLUMINATION

The relative illumination is shown for the given focal distances or magnifications.

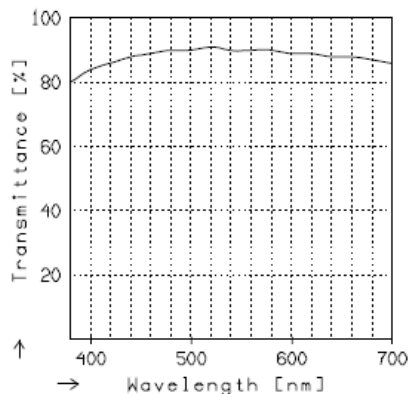
$f / 5.6$	$f / 8.0$	$f / 11.0$
— $\beta' = -0.0833$	$u'_{max} = 48.4$	$00' = 1439.$
- - $\beta' = -0.1667$	$u'_{max} = 48.4$	$00' = 833.$
- - - $\beta' = -0.3333$	$u'_{max} = 48.4$	$00' = 543.$



DISTORTION

Distortion is shown for the given focal distances or magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

— $\beta' = -0.0833$	$u'_{max} = 48.4$	$00' = 1439.$
- - $\beta' = -0.1667$	$u'_{max} = 48.4$	$00' = 833.$
- - - $\beta' = -0.3333$	$u'_{max} = 48.4$	$00' = 543.$



TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.